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for U.S. patent practice. In a typical procedure, an incipient wetness technique is used to impregnate attrition resistant microsphercidal particles with a solution (or solutions) of catalytically active material or precursors thereof, e.g. salts of the catalytically active material. Preferably, the impregnated microspheroidal particles are dried slowly at an elevated temperature, such as 40 to 80° C, typically for more than about eight hours. If catalytically active precursors such as salts of catalytically active metals are used, such metal salts may be reduced after impregnation to form a catalyst material. —

IN THE CLAIMS:

Please cancel claims 1-20 and add claims 21-43 as follows

- 21. In a method to make attrition resistant microspheroidal particles formed by spray drying an aqueous slurry comprising a metal oxide sol and an inorganic particulate solid, separating the resulting microspheroidal particles, and drying the microspheroidal particles, the improvement comprising adding a minor portion of added microspheroidal particle fines to the aqueous slurry.
- 22. The method of claim 21 in which the metal oxide sol and inorganic particulate solid are formed from aluminum oxides, zirconium oxides, titanium oxides, iron oxides, cerium oxides, BaTiSiO₃, SrTiO₃, PbTiO₃, silica, talc, kaolin, mica, calcium carbonate, barium sulphate, calcium phosphate, or mixtures thereof.
- 23. The method of claim 21 in which the metal oxide sol and inorganic particulate solid are formed from silica.
- 24. The method of claim 21 in which the microspheroidal particles are formed using up to 35 wt%, based on total solids, of added microspheroidal particle fines in the slurry.
- 25. The method of claim 21 in which the microspheroidal particles are formed using up to 25 wt%, based on total solids, of added microspheroidal particle fines in the slurry.
- 26. The method of claim 21 ir. which the microspheroidal particles are formed using at least 5 wt% and up to 30 wt%, based on total solids, of recycled microspheroidal particle fines in the slurry.
- 27. The method of claim 21 in which the microspheroidal particles are formed using at least 15 wt% and up to 25 wt%, based on total solids, of recycled microspheroidal particle fines in the slurry.



- 28. The method of claim 21 in which the average diameter of the added microspheroidal particle fines is 0.01 to 0.6 of the mean diameter of the resulting microspheroidal particles.
- 29. The method of claim 21 in which the metal oxide sol and inorganic particulate solid are formed from silica, and using at least 5 wt% and up to 25 wt%, based on total solids, of added microspheroidal particle fines in the slurry.
- 30. The method of claim 29 in which the average diameter of the added microspheroidal particle fines is 0.1 to 0.4 of the mean diameter of the resulting microspheroidal particles.
- 31. Attrition resistant microspheroidal particles formed by spray drying an aqueous slurry comprising a metal oxide sol and an inorganic particulate solid, in which a minor portion of microspheroidal particle fines is added to the aqueous slurry.
- 32. The microspheroidal particles of claim 31 in which the metal oxide sol and inorganic particulate solid are formed from silica.
- 33. The microspheroidal particles of claim 32 in which the metal oxide sol is a silica sol.
- 34. The microspheroidal particles of claim 32 in which the inorganic particulate solid are silica particles.
- 35. The microspheroidal particles of claim 32 which are formed using at least 5 wt% and up to 25 wt%, based on total solids, of added microspheroidal particle fines in the slurry and in which the average diameter of the added microspheroidal particle fines is 0.01 to 0.6 of the mean diameter of the resulting microspheroidal particles.
- 36. The microspheroidal particles of claim 31 having a pore volume of 0.2 to 0.7 cm³/g.
- 37. The microspheroidal particles of claim 31 having a microsphere surface area of 50 to $200 \text{ m}^2/\text{g}$.
- 38. The microspheroidal particles of claim 32 having a pore volume of 0.4 to 0.55 cm³/g and a microsphere surface area of 60 to 125 m²/g.
- 39. The microspheroidal particles of claim 32 having a particle size of 10 to 200 μm .
- 40. The microspheroidal particles of claim 38 having a particle size of 20 to 150 μm .
- 41. A fluidized bed, acetoxylation catalyst component comprising attrition resistant microspheroidal particles of claim 31 on which has been placed catalytic metals.